



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/573,961

03/29/2006

Didier Loup

TFR0209

7753

27305

7590

07/16/2010

HOWARD & HOWARD ATTORNEYS PLLC

450 West Fourth Street

Royal Oak, MI 48067

EXAMINER

DUONG, THO V

ART UNIT

PAPER NUMBER

3744

MAIL DATE

DELIVERY MODE

07/16/2010

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/573,961	Applicant(s) LOUP ET AL.	
	Examiner Tho v. Duong	Art Unit 3744	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 May 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3, 12 and 14-31 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-3, 12, 14-26 and 29 is/are allowed.
- 6) ☒ Claim(s) 27, 28 and 30 is/are rejected.
- 7) ☒ Claim(s) 31 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Applicant's amendment filed 5/3/10 is acknowledged. Claims 1-3,12 and 14-31 are pending.

Response to Arguments

Applicant's arguments filed 5/3/10 have been fully considered but they are not persuasive. Applicant's argument that reference to Bureau fails to teach first closed loop and a second closed loop, has been very carefully considered but is not found to be persuasive because Bureau discloses the first closed loop being the refrigerant loop and the second loop is the heat storage medium loop, which the heat storage medium can circulate between the heat exchangers (channels 651 of heat exchanger) to storage tank (paragraph 59). Applicant's request for not making this office final has been considered but is not persuasive because the ground of rejection 102 (b) of claim 27 has been the same in the previous non-final Rejection.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 27-28 are rejected under 35 U.S.C. 102(b) as being anticipated by Bureau et al. (US 2002/0088246A1). Bureau discloses (figure 1 and 5-10 and paragraphs 59- 60) a heat exchanger comprising a plurality of modules stacked in a first direction, connected to an inlet pipe and to an outlet pipe for a first fluid and suitable for circulating the first fluid, characterized

Art Unit: 3744

in that the modules comprise two series of distinct channels (650,651) suitable for receiving the first fluid and a second fluid; the second fluid can be conveyed by at least a third connecting pipe. Bureau further discloses (figure 1 and paragraph 59) at least a first closed loop (refrigerant loop, in which refrigerant flows through channels 650 of heat exchanger 232 and then compressor 214, then condenser 216, then reservoir 218, then expansion valve 236) in which the heat exchanger is crossed by an air flow (arrow) and in which the first fluid can circulate so as to give up heat or cold to the air flow in the heat exchanger (232). Bureau further discloses (figure 59) a second closed loop (channels 651 connected together and to storage tank by connecting pipe) in which the second fluid can circulate between the heat exchanger (232) and a tank (storage tank) so as to receive heat or cold from the first heat transfer fluid and the second loop can contain between 500ml to 1000 ml of decanol or tetradecane.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 30 is rejected under 35 U.S.C. 103(a) as obvious over Bureau et al. (US 2002/0088246A1). Bureau further discloses that each module is formed of three mutually plates (640-642); the modules are separated from each other in order to define intervals between them for the passage of an air flow in the third direction; the plates are formed in order to define passages (650,651) in each module for the circulation of the first and second heat transfer fluids in the second direction, respectively on either side of the intermediate plate (642), and having, in

Art Unit: 3744

two end regions located on either side of the media region, openings for enabling the various modules to receive the first and second fluid; the plates being connected together to be sealed to the fluids around the openings, and at their periphery in each module. Regarding the method of forming device (stamped) is not germane to the issue of the patentability of the device itself.

“Even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process.” In re Thorpe, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985). In this case, the heat exchanger in the product by process claim is the same as or obvious from the heat exchanger of the prior art, the claim is unpatentable even though the prior heat exchanger was made by a different process.

Allowable Subject Matter

Claims 1-3,12,14-26 and 29 are allowed.

Claim 31 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

Art Unit: 3744

MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tho v. Duong whose telephone number is 571-272-4793. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tyler J. Cheryl can be reached on 571-272-4834. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Tho v Duong/
Primary Examiner, Art Unit 3744

Application/Control Number: 10/573,961

Page 6

Art Unit: 3744